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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,744	09/14/2001	Vladimir Pogrebinsky	0866/0J839	9488
27130	7590	05/16/2005	EXAMINER	
EITAN, PEARL, LATZER & COHEN ZEDEK LLP 10 ROCKEFELLER PLAZA, SUITE 1001 NEW YORK, NY 10020			PHAN, MAN U	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/955,744

Applicant(s)

POGREBINSKY ET AL.

Examiner

Man Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***DETAILED ACTION***

1. The application of Pogrebinsky et al. for a "Flow control method and apparatus" filed 09/14/2001 has been examined. The preliminary amendment filed 12/27/2001 has been entered and made of record. This application is a continuation of PCT/IL00/00157 filed 03/14/2000, and claims priority from Provisional Application 60124371 filed 03/15/1999. Claims 1-5 are pending in the application.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The Abstract of the disclosure is objected to because it contains the legal phraseology "said". Correction is required.

***Claim Rejections - 35 USC ' 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites limitation "said network available bandwidth" in line 10.

There is insufficient antecedent basis for these limitations in the claims.

***Claim Rejections - 35 USC ' 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims

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was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (US#6,614,763) in view of Berthaud et al. (US#5,815,492).

With respect to claims 1, 3-5, Kikuchi et al. (US#6,614,763) and Berthaud et al. (US#5,815,492) disclose a novel system and method for adjusting an available bandwidth in a communication network utilizing probing packets to estimate available bandwidths of network path, according to the essential features of the claims. Kikuchi et al. discloses in Figs. 15, 16 the functional block diagram and flow chart illustrated the reciprocal path performance measurement processing, in which a sending unit sends a plurality of probing packets (*test packets for measuring the available bandwidth*) at *equi-intervals* into a network path; a reception unit receives the plurality of probing packets; a measurement unit measures transmission time  $T(i)$  from the start of sending of each of the probing packets in the sending step up to the completion of reception of each of the probing packets in the reception step (*e.g. for calculating the bit rate in accordance with the currently available bandwidth*); and a performance estimation unit estimates an available bandwidth of the network path from correlations in difference between measurement packet transmission times  $T(i)$  measured in the measurement step (Col. 1, lines 64 plus, and Col. 20, lines 32 plus).

However, Kikuchi et al. does not disclose expressly the step of adjusting packet transmission bit rate in accordance with the available bandwidth for controlling network bandwidth. In the same field of endeavor, Berthaud et al. discloses a method and system of dynamically adapting access to a packet switching communication network including a *dynamic bandwidth adjustment mechanism* which continuously monitor the mean bit rate of the signal source and the loss probability of the connection, comprising the steps of: measuring the mean bit rate of traffic from the source node, controlling the flow of traffic from the source node into the network by means of a leaky bucket control circuit, measuring the loss probability of packets introduced into the network by the leaky bucket control circuit, filtering the loss probability measurements, defining adaptation regions on the values of the simultaneous mean bit rate and loss probability measurements, in response to pairs of the mean bit rate and loss probability measurements falling outside the adaptation regions, requesting a modification of the bandwidth allocated to connections from the source node (*adjusting the bandwidth based on the measurement, by changing packet transmission bit rate*) (Col. 5, lines 10 plus and Col. 17, lines 21 plus).

With respect to claim 2, Kilkuchi et al. further teach in Figs. 11-12 the flowcharts illustrated of the available bandwidth estimation processing using the monotonically increasing or decreasing the measurement packet sending speed (*transmission bit rate*), to see whether an available bandwidth of a network path exceeds the transfer speed X (bps) to thereby estimate the available bandwidth of the path (Col. 15, lines 29 plus and Col. 21, lines 7 plus).

One skilled in the art would have recognized the need for effectively and efficiently adjusting the bandwidth based on communication bit rate, and would have applied Berthaud's teaching of a dynamic bandwidth adjustment mechanism into Kikuchi's novel use of a the estimating present network bandwidth utilizing test packets for measuring the available bandwidth. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Berthaud's dynamic bandwidth estimation and adaptation in high speed packet switching networks into Kikuchi's method of and apparatus for measuring network communication performances, as well as computer readable record medium having network communication performance measuring program stored therein with the motivation being to provide a method and system for measuring network bandwidth.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Derby et al. (US#5,359,593) is cited to show the dynamic bandwidth estimation and adaptation for packet communications networks.

The Berthaud et al. (US#6,011,776) is cited to show the dynamic bandwidth estimation and adaptation in high speed packet switching networks.

The Chevalier et al. (US#5,881,050) is cited to show the method and system for non disruptively assigning link bandwidth to a user in a high speed digital network.

The Galand et al. (US#6,424,624) is cited to show a method and system for implementing congestion detection and flow control in high speed digital network.

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The Ambert et al. (US#6,388,992) is cited to show the flow control technique for traffic in a high speed packet switching network.

The Bouyer et al. (US#6,356,565) is cited to show the flow method of controlling bandwidth allocation in shared access local networks and a protocol and a filter for implementing the method.

The Zavalkovsky et al. (US#6,882,940) is cited to show the method and apparatus for adapting enforcement of network quality of service police based on feedback about network conditions.

The Fan et al. (US#6,408,005) is cited to show the dynamic rate control scheduler for ATM network.

The Aydemir et al. (US#6,771,652) is cited to show the method and system for controlling transmission of packets in computer networks.

The Droz (US#6,292,466) is cited to show the connection admission control in high speed packet switched networks.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should



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be directed to the receptionist whose telephone number is (571) 272-2600.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

05/11/2005.

*Man U. Phan*  
MAN U. PHAN  
PRIMARY EXAMINER